

CLAIMS

What is claimed is:

1 1. A shopping system, comprising:
2 a shopping cart including a plurality of wheels;
3 a portable electronic device, coupled to the shopping cart, for displaying shopping data;
4 and
5 an energy generator, coupled to one of the plurality of wheels, for adding energy to a
6 power source of the portable electronic device.

1 2. A shopper tracking system, comprising:
2 a shopping cart including a plurality of wheels;
3 a portable electronic device, coupled to the shopping cart, for displaying shopping data;
4 and
5 a position mapping system, coupled to the portable electronic device, for developing a
6 shopper location relative to a start location, the mapping system including
7 a distance measuring system, coupled to one of the plurality of wheels; for providing a
8 distance signal indicating a distance of movement of the shopping cart; and
9 a direction measuring system for providing a direction signal concurrent with the
10 distance signal.

1 3. The shopper tracking system of claim 2 further comprising:
2 a position locating system, coupled to the portable electronic device, for entering
3 absolute coordinates of the start location.

1 4. The shopper tracking system of claim 2 further comprising:
2 a merchandise reader, coupled to the portable electronic device, for detecting
3 merchandise identification data from a merchandise element proximate the portable electronic
4 device; and
5 a database, coupled to the portable electronic device, for storing absolute coordinate
6 data for the merchandise element;
7 the POS device using the absolute coordinate data of the merchandise element to adjust
8 the shopper location.

1 5. The shopper tracking system of claim 4 wherein the merchandise reader is a bar
2 code scanner and the merchandize identification data is a UPC bar code.

1 6. The shopper tracking system of claim 4 wherein the database is remotely
2 located relative to the portable electronic device and the portable electronic device is coupled to
3 the database using a wireless transmission system.

1 7. The shopper tracking system of claim 4 wherein the database is written into a
2 memory of the portable electronic device.

1 8. The shopper tracking system of claim 2 further comprising:
2 a merchandise reader, coupled to the portable electronic device, for detecting
3 merchandise identification data from a merchandise element proximate the portable electronic

device; and

a database, coupled to the portable electronic device, for storing absolute coordinate data for the merchandise element;

the portable electronic device using the absolute coordinate data of the merchandise element to adjust the shopper location.

9. The shopper tracking system of claim 2 wherein the portable electronic device enters a reduced power consumption mode when the distance measuring signal indicates that the shopping cart has not moved at least a first threshold distance within a second threshold period.